

EYEPIECE TO INSTRUMENT COUPLER

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CLAIMS

I Claim and therefore seek Protection secured by Letters of Patent for the following:

1. A mechanical Coupler able to make and hold an optical connection between some form of viewing device such as but not limited to Telescopes, Binoculars, Microscopes, Otto-Scopes etc., to a Camera or some other form, of image recording device. Said coupler consists of:

- (a) a clamping component or mechanism that enables said Coupler to attach to the eyepiece of a scope or other viewing device.
- (b) an adjustable post that supports and fixes the clamping component to a slotted base bracket.
- (c) a base bracket with provision for attachment to the clamp supporting post and cut with a slot running perpendicular to and from the post. Through this slot is inserted a tripod socket screw able to slide laterally up and down the base bracket and to or from the post.
- (d) a tripod socket screw with an undercut on the threads so that it may engage the slot in the base bracket, thread through the bracket and then become free to slide up and down the length of the slot. Once threaded through the base bracket to the under cut area of the threaded, the tripod socket screw becomes free to engage, position and attach an Image recording instrument such as a digital camera, etc.
- (e) a jam nut or similar to secure position between adjustable post and base bracket.

2. An eyepiece to instrument Coupler according to claim 1, that is complete, requiring no other adapter or attachment, to couple a viewing device to an image recording device or instrument. Said Coupler accomplishes this task by clamping onto eyepiece with a clamping mechanisms roughly sized and shaped for that purpose and with the ability to be adjusted to fit. Said clamping component is in turn supported by an adjustable post and base bracket able to allow optical alignment with image recording instrument attached to said base bracket by means of a tripod socket screw.

3. An eyepiece to instrument Coupler according to claim 1, that has a clamping mechanism that is roughly sized and shaped to allow the barrel of an eyepiece to slip into, extend through, and shoulder up to the clamping mechanism's face. Once secured by adjustment, remaining portion of eyepiece is inserted into focuser with alternate face of clamping mechanism shouldered up against exterior face of focuser.

4. An eyepiece to instrument Coupler according to claim 1, that has a clamping mechanism that is roughly sized and shaped to allow clamping onto the eyepiece head or over the shroud of non-removable eyepieces such as but not limited to Otto-scopes.

5. An eyepiece to instrument Coupler according to claim 1, that has an adjustable post attached to the clamping mechanism and allows said clamp to be positioned up and down from a base bracket and independently rotate about the axis of said post.

6. That the afore mentioned post in claim 5, can be positioned and hold afore mentioned clamp and base bracket apart at any selectable distance by means of threads or stops and in such a way that distance and orientation is independently repeatable and adjustable, allowing for the moving of camera or instrument to the side and then returned without need for realignment.

7. An eyepiece to instrument Coupler according to claim 1, that has a base bracket that accommodates afore mentioned vertical post that threads through said base bracket affecting both the attachment and positioning of aforementioned clamp to base bracket. Said Base bracket also has slot for a tripod socket screw that engages, slides and rotates into position and affixes a camera type instrument to the base bracket. Said base bracket allowing flexibility in positioning of all attachments, provides for accurate, repeatable optical alignment between eyepiece and image recording instrument.